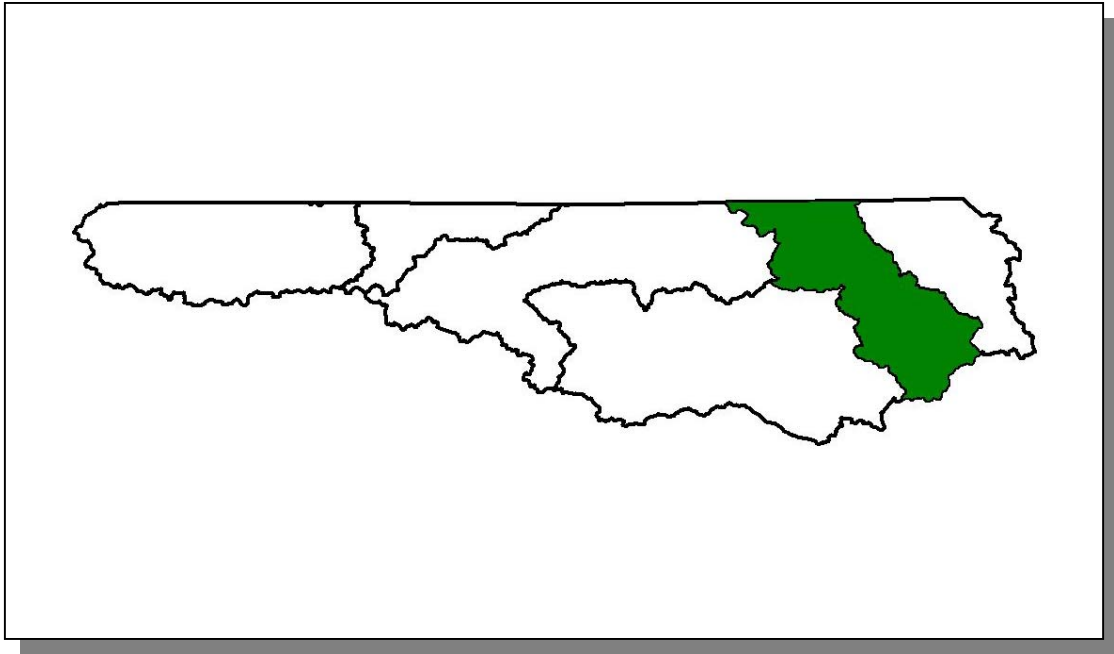
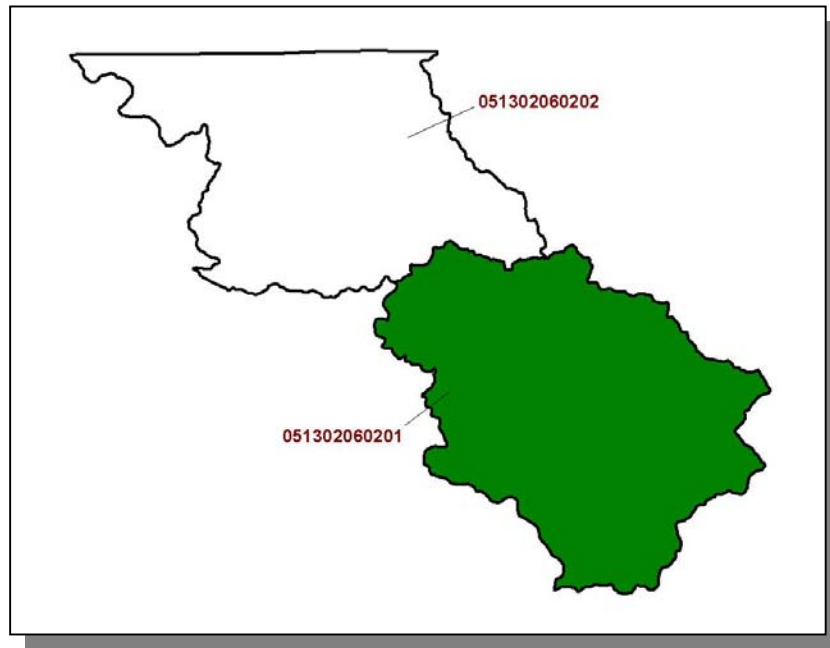


**4.2.B. 0513020602.**

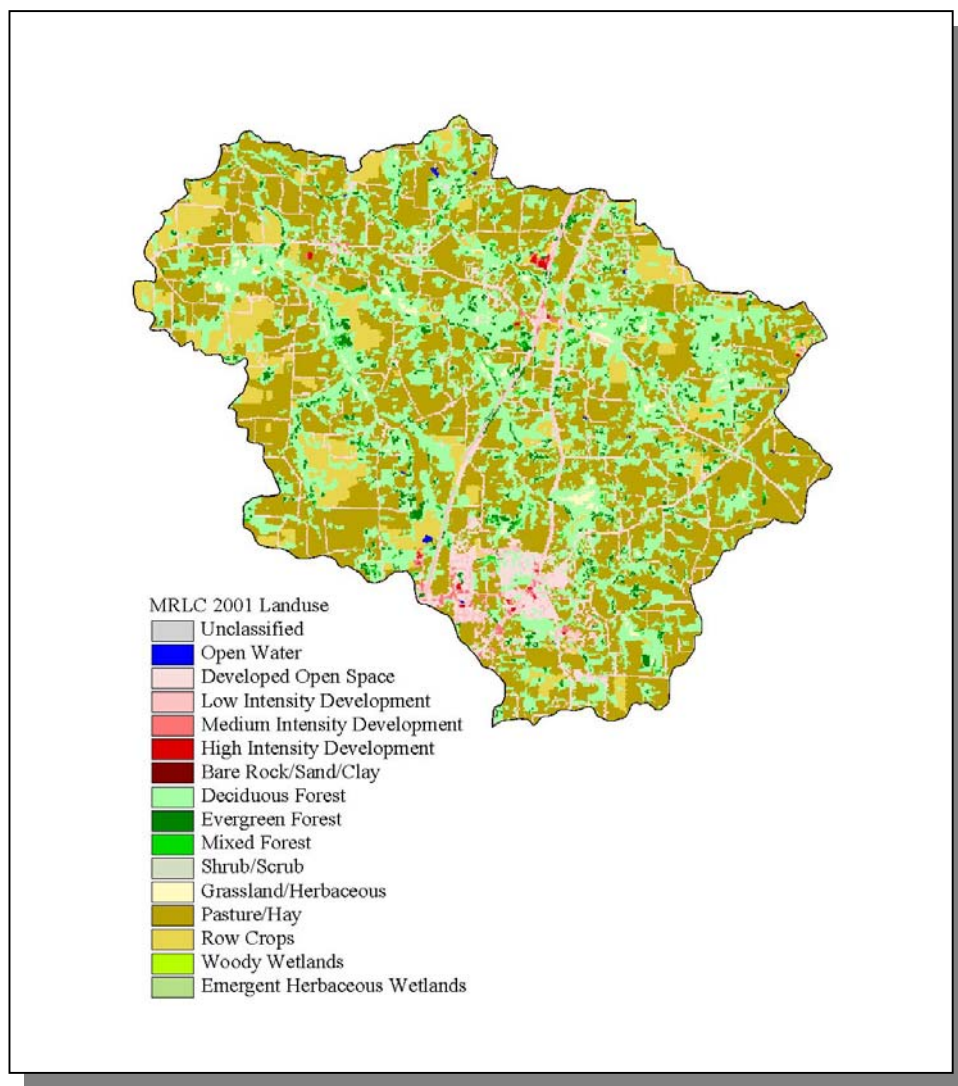


**Figure 4-20. Location of Subwatershed 0513020602.** All Red River HUC-10 subwatershed boundaries in Tennessee are shown for reference.

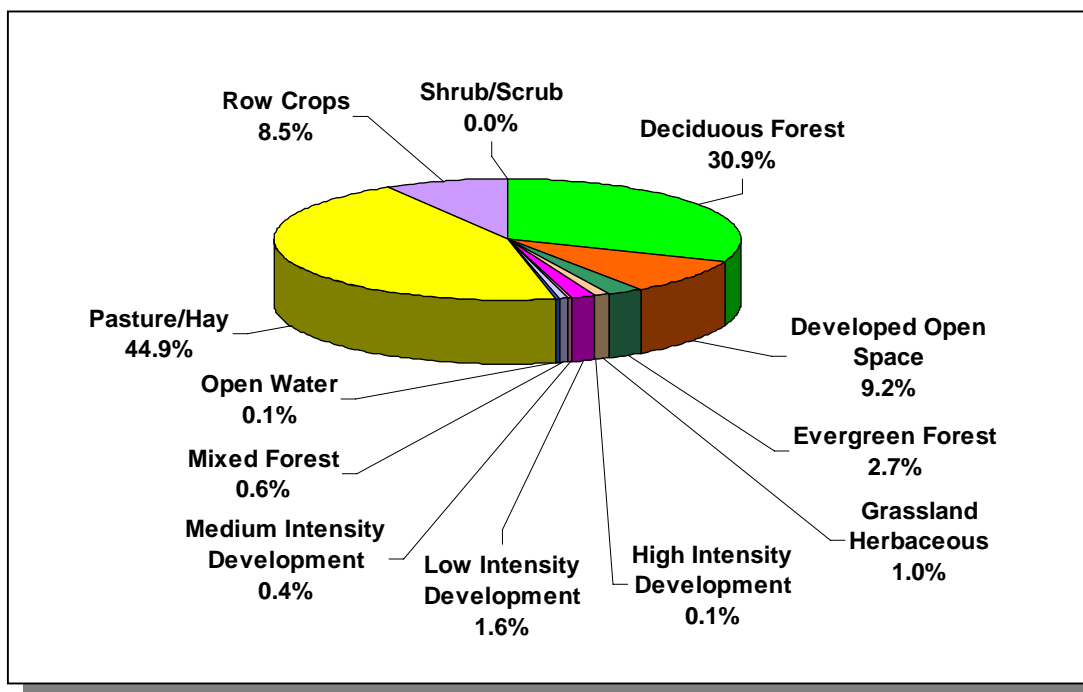
**4.2.B.i. 051302060201 (South Fork Red River).**



**Figure 4-21. Location of Subwatershed 051302060201.** All Red River HUC-12 subwatershed boundaries in Tennessee are shown for reference.

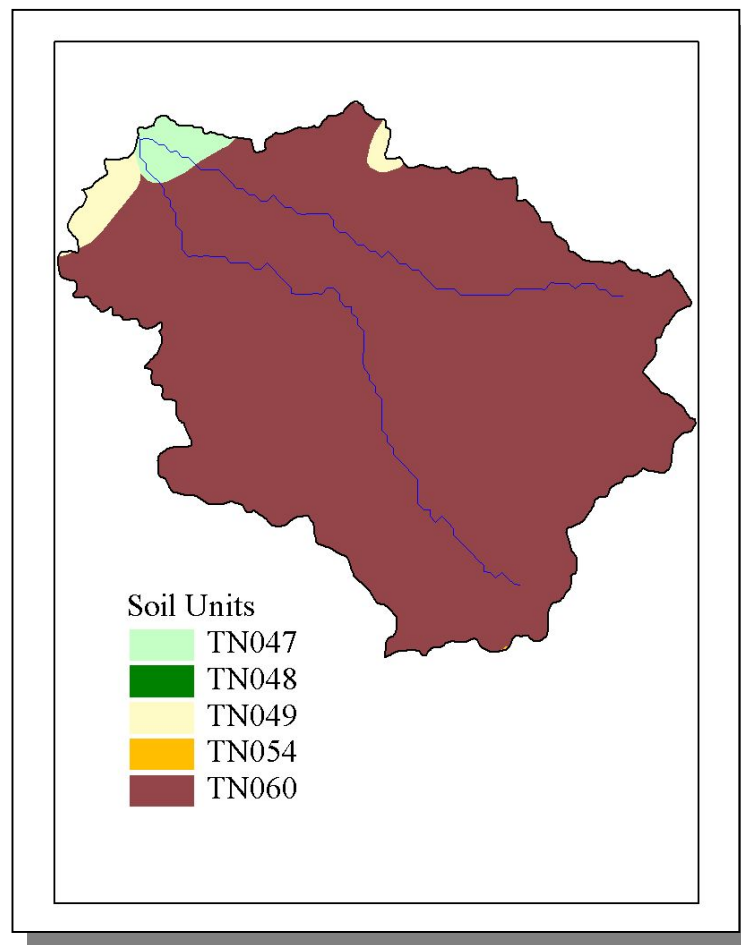


**Figure 4-22. Illustration of Land Use Distribution in Subwatershed 051302060201.**



**Figure 4-23. Land Use Distribution in Subwatershed 051302060201.** More information is provided in Appendix IV.

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**Figure 4-24. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051302060201.**

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN047	21.00	C	1.62	5.73	Silty Loam	0.37
TN048	8.00	B	1.38	5.06	Silty Loam	0.42
TN049	0.00	C	1.30	5.94	Silty Loam	0.34
TN054	0.00	B	3.04	4.84	Loam	0.32
TN060	5.00	C	1.30	5.32	Silty Loam	0.39

**Table 4-16. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 060102060201.** The definition of "Hydrologic Group" is provided in Appendix IV.

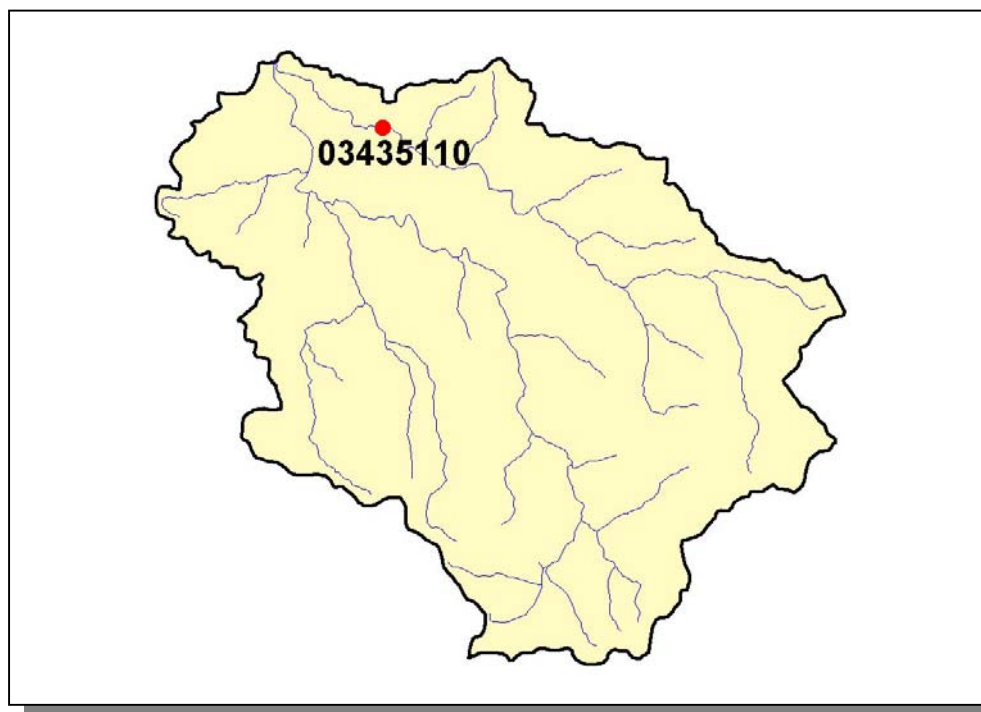
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County	COUNTY POPULATION			Portion of Watershed (%)	ESTIMATED POPULATION IN WATERSHED			% Change (1990-2000)
	1990	1997	2000		1990	1997	2000	
Robertson	41,494	51,533	54,433	7.33	3,041	3,777	3,989	31.2
Sumner	103,281	121,936	130,449	4.08	4,212	4,972	5,319	26.3
<b>Total</b>	<b>144,775</b>	<b>173,469</b>	<b>184,882</b>		<b>7,253</b>	<b>8,749</b>	<b>9,308</b>	<b>28.3</b>

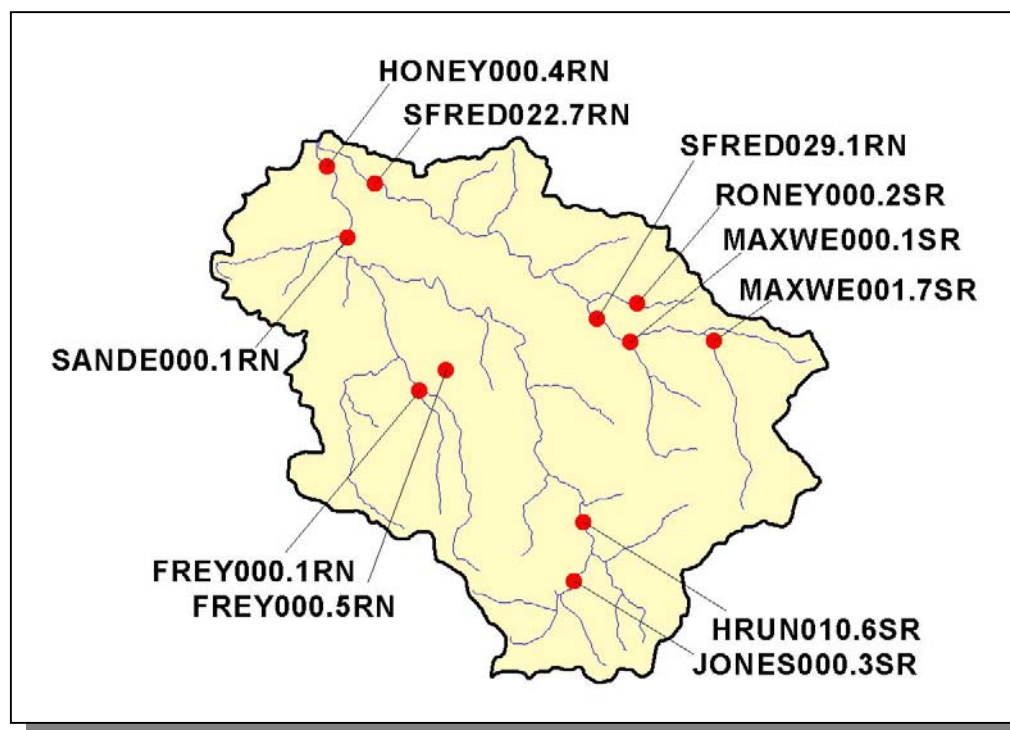
*Table 4-17. Population Estimates in Subwatershed 051302060201.*

			NUMBER OF HOUSING UNITS			
Populated Place	County	Population	Total	Public Sewer	Septic Tank	Other
White House	Sumner	3,024	1,130	991	136	3
Cross Plains	Robertson	1,005	389	15	369	5
<b>Total</b>		<b>4,029</b>	<b>1,519</b>	<b>1,006</b>	<b>505</b>	<b>8</b>

*Table 4-18. Housing and Sewage Disposal Practices of Select Communities in Subwatershed 051302060201.*

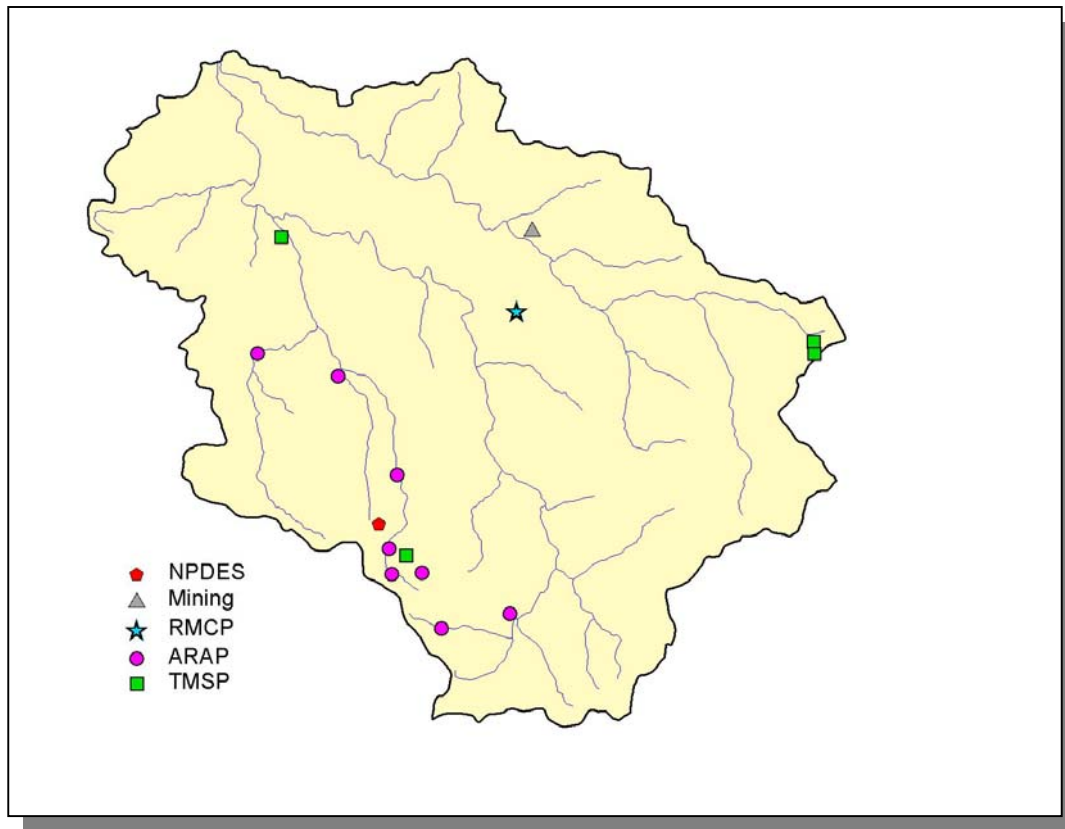


**Figure 4-25. Location of Historical Streamflow Data Collection Sites in Subwatershed 051302060201.** More information is provided in Appendix IV.



**Figure 4-26. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 051302060201.** More information, including site names and locations, and station numbers for sites located in the watershed outside of Tennessee, is provided in Appendix IV.

**4.2.B.i.a. Point Source Contributions.**



**Figure 4-27. Location of Permits Issued in Subwatershed 051302060201.** More information, including the names of facilities, is provided in Appendix IV.





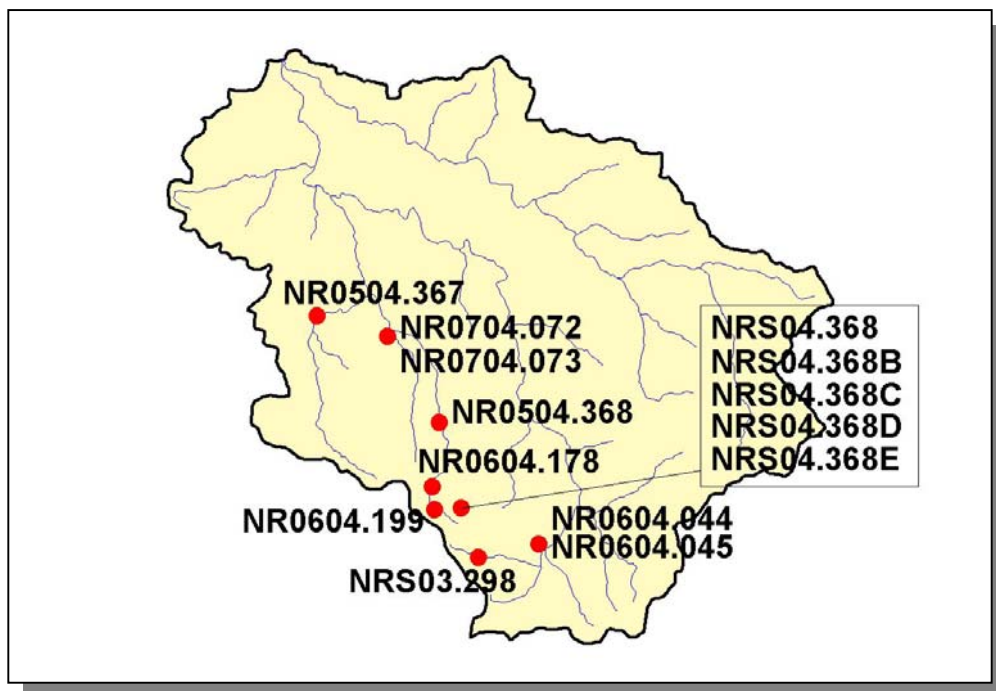
**Figure 4-28. Location of Active NPDES Sites in Subwatershed 051302060201.** More information, including the names of facilities, is provided in Appendix IV.



**Figure 4-29. Location of Active Mining Sites in Subwatershed 051302060201.** More information, including the names of mining operations, is provided in Appendix IV.



**Figure 4-30. Location of Ready Mix Concrete Plants (RMCP) in Subwatershed 051302060201.** More information is provided in Appendix IV.



**Figure 4-31. Location of Aquatic Resource Alteration Permit (ARAP) Sites (Individual Permits) in Subwatershed 051302060201.** More information is provided in Appendix IV.



**Figure 4-32. Location of TMSP Sites in Subwatershed 051302060201.** More information, including the names of facilities, is provided in Appendix IV.

**4.2.B.i.a.i. Dischargers to Water Bodies Listed on the 2004 303(d) List**

There is one NPDES facility discharging to water bodies listed on the 2004 303(d) list in Subwatershed 051302060201:

- TN0059404 (White House STP) discharges to Frey Branch Creek @ RM 2.2



**Figure 4-33. Location of NPDES Dischargers to Water Bodies Listed on the 2004 303(d) List in Subwatershed 051302060201.** More information, including the names of facilities, is provided in Appendix IV.

PERMIT #	1Q10	3Q10	7Q10	3Q20	QDESIGN
TN0059404	Regulated		0.0		1.1

**Table 4-19. Receiving Stream Flow Information for NPDES Dischargers to Waterbodies Listed on the 2004 303(d) List in Subwatershed 051302060201.** Data are in million gallons per day (MGD). Data were obtained from the USGS publication Flow Duration and Low Flows of Tennessee Streams Through 1992 or from permit files.

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PERMIT #	WET	CBOD <sub>5</sub>	NH <sub>3</sub>	TSS	SETTLEABLE SOLIDS	DO	pH	Flow
TN0059404	X	X	X	X	X	X	X	X

**Table 4-20. Parameters Monitored for Daily Maximum Limits for NPDES Dischargers to Waterbodies Listed on the 2004 303(d) List in Subwatershed 051302060201.** WET, Whole Effluent Toxicity; CBOD<sub>5</sub>, Carbonaceous Biochemical Oxygen Demand (5-Day), NH<sub>3</sub>, ammonia; TSS, Total Suspended Solids; DO, Dissolved Oxygen.

PERMIT #	<i>E. coli</i>	FECAL COLIFORM
TN0059404	X	X

**Table 4-21. Bacteria Monitored for Daily Maximum Limits for NPDES Dischargers to Waterbodies Listed on the 2004 303(d) List in Subwatershed 051302060201.**

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**4.2.B.i.b. Nonpoint Source Contributions.**

LIVESTOCK COUNTS					
Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep
3,605	7,466	387	7	729	37

**Table 4-22. Summary of Livestock Count Estimates in Subwatershed 051302060201.**  
According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

LIVESTOCK COUNTS						
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep
Robertson	22,502	47,887	3,478	31	6,982	279
Sumner	22,296	45,116	1,515	50	2,500	189

**Table 4-23. Summary of Livestock Count Estimates in Robertson and Sumner Counties.**  
According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

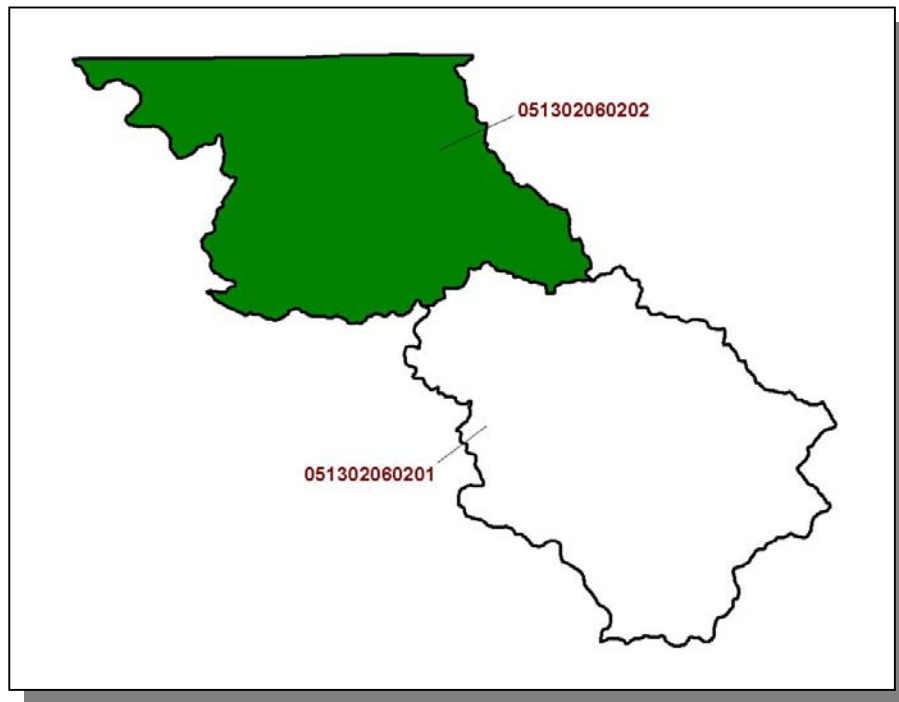
County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Robertson	53.0	53.0	2.2	9.7
Sumner	88.2	88.2	2.0	6.3

**Table 4-24. Forest Acreage and Annual Removal Rates (1987-1994) in Robertson and Sumner Counties.**

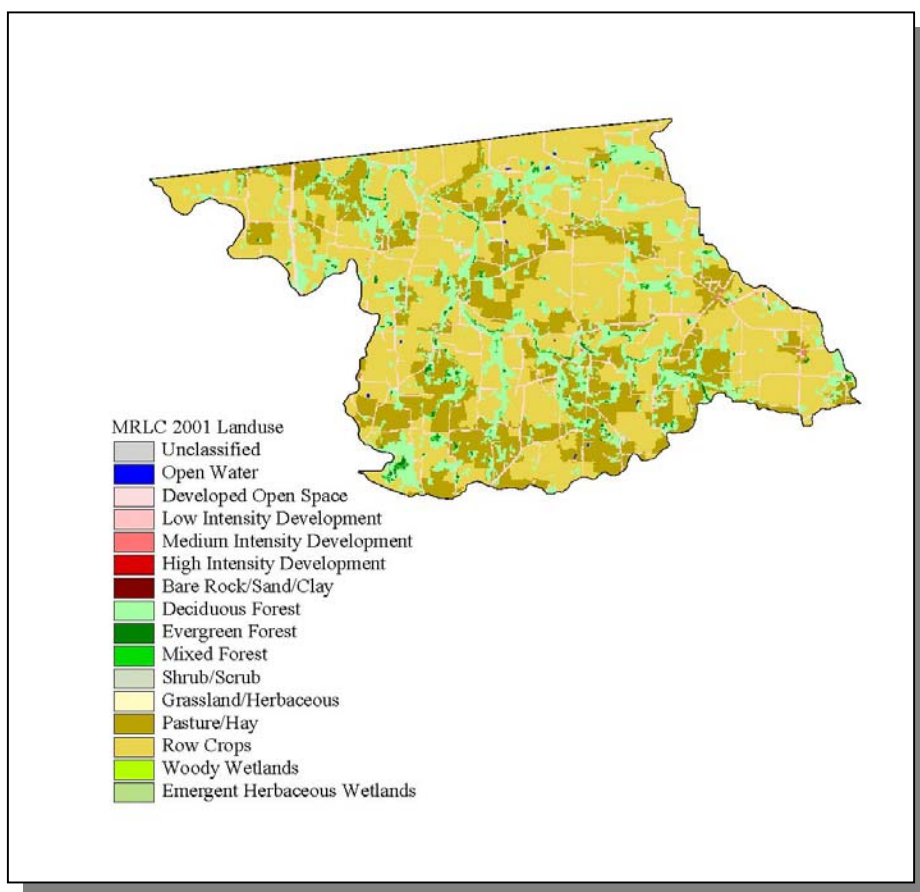
CROPS	TONS/ACRE/YEAR
Grass (Pastureland)	0.59
Grass (Hayland)	0.35
Legumes, Grass (Hayland)	0.41
Legumes (Hayland)	0.49
Grass, Forbs, Legumes (Mixed Pasture)	0.46
Corn (Row Crops)	7.91
Soybeans (Row Crops)	10.51
Wheat (Close-Grown Cropland)	1.68
Tobacco (Row Crops)	11.87
Other Cropland not Planted	13.31
Conservation Reserve Program Lands	0.32
Other Land in Farms	0.27
Farmsteads and Ranch Headquarters	0.71

**Table 4-25. Annual Estimated Total Soil Loss in Subwatershed 051302060201.**

**4.2.B.ii. 051302060202 (South Fork Red River).**



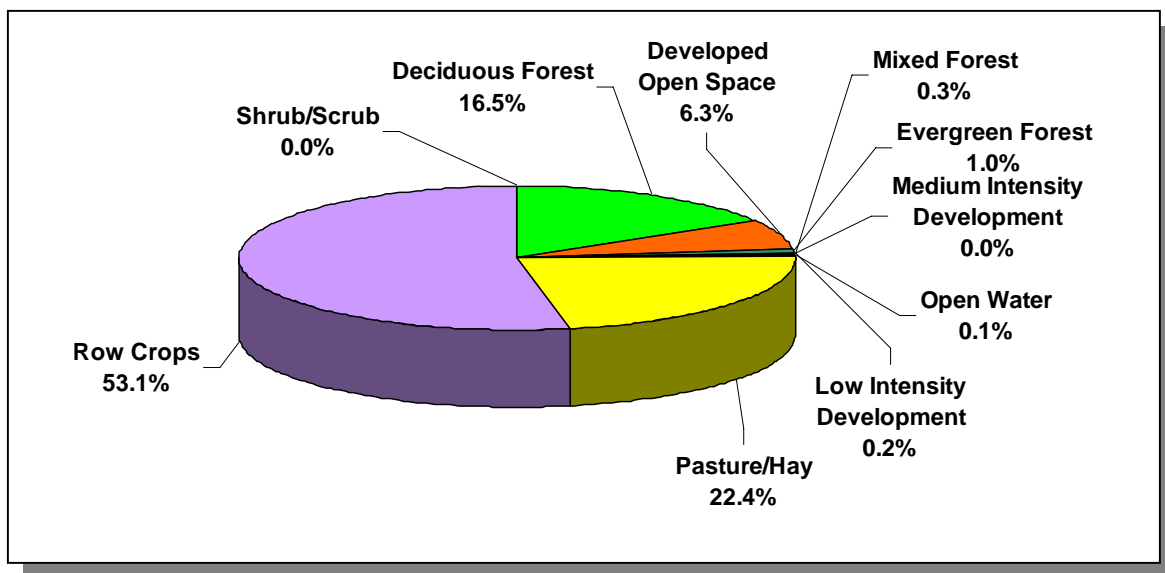
**Figure 4-34. Location of Subwatershed 051302060202.** All Red River HUC-12 subwatershed boundaries in Tennessee are shown for reference.



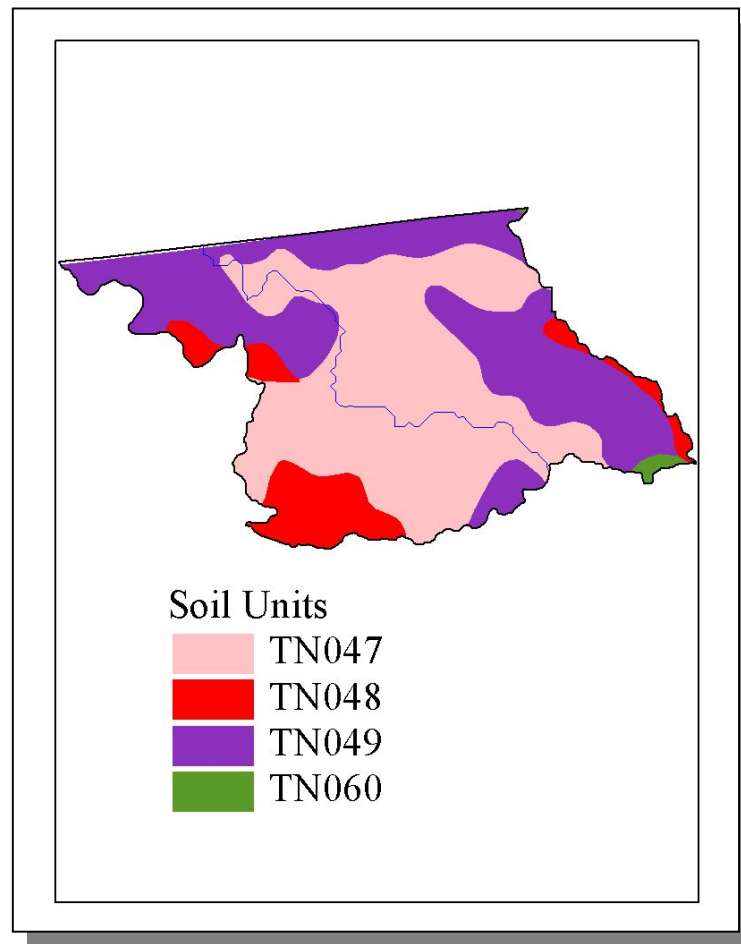
**Figure 4-35. Illustration of Land Use Distribution in Subwatershed 051302060202.**



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**Figure 4-36. Land Use Distribution in Subwatershed 051302060202.** More information is provided in Appendix IV.



**Figure 4-37. STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051302060202.**

STATSGO MAP UNIT ID	PERCENT HYDRIC	HYDROLOGIC GROUP	PERMEABILITY (in/hour)	SOIL pH	ESTIMATED SOIL TEXTURE	SOIL ERODIBILITY
TN047	21.00	C	1.62	5.73	Silty Loam	0.37
TN048	8.00	B	1.38	5.06	Silty Loam	0.42
TN049	0.00	C	1.30	5.94	Silty Loam	0.34
TN060	5.00	C	1.30	5.32	Silty Loam	0.39

**Table 4-26. Soil Characteristics by STATSGO (State Soil Geographic Database) Soil Map Units in Subwatershed 051302060202.** The definition of "Hydrologic Group" is provided in Appendix IV.

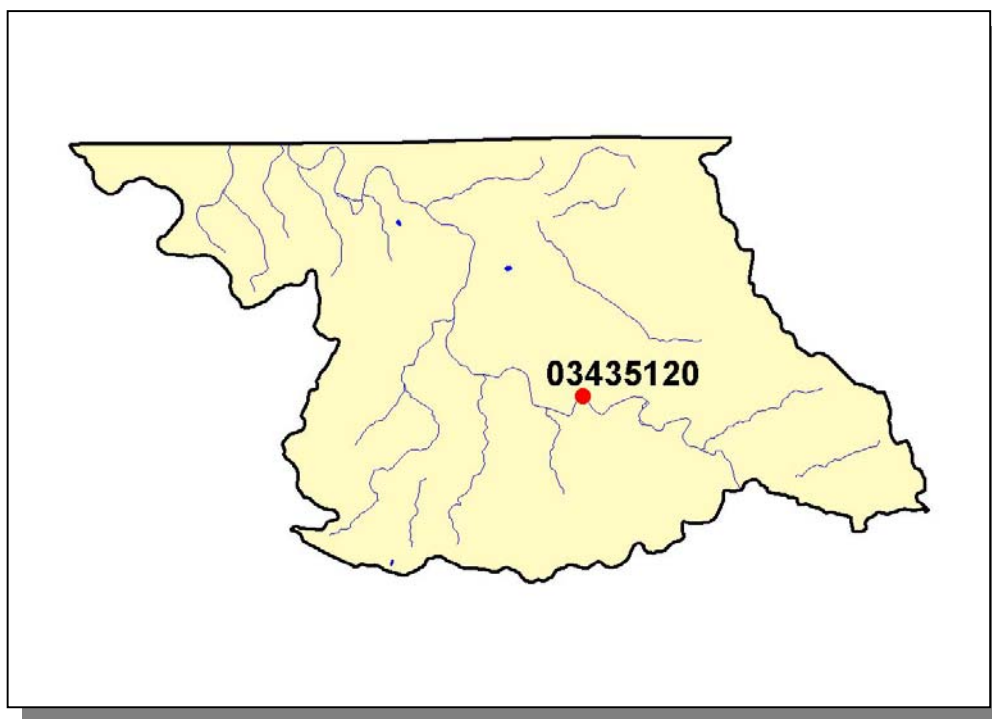
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County	COUNTY POPULATION			Portion of Watershed (%)	ESTIMATED POPULATION IN WATERSHED			% Change (1990-2000)
	1990	1997	2000		1990	1997	2000	
Robertson	41,494	51,533	54,433	10.11	4,195	5,209	5,503	31.2

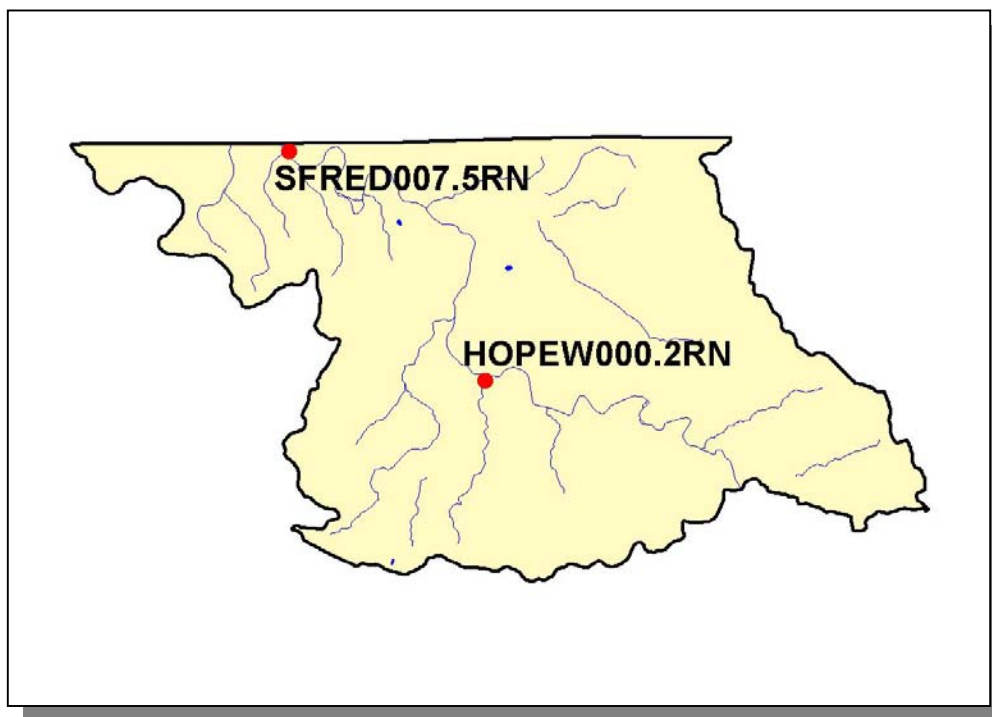
**Table 4-27. Population Estimates in Subwatershed 051302060202.**

Populated Place	County	Population	NUMBER OF HOUSING UNITS			
			Total	Public Sewer	Septic Tank	Other
Cross Plains	Robertson	1,005	389	15	369	5
Orlinda	Robertson	476	199	2	194	3
<b>Total</b>		<b>1,481</b>	<b>588</b>	<b>17</b>	<b>563</b>	<b>8</b>

**Table 4-28. Housing and Sewage Disposal Practices of Select Communities in Subwatershed 051302060202.**

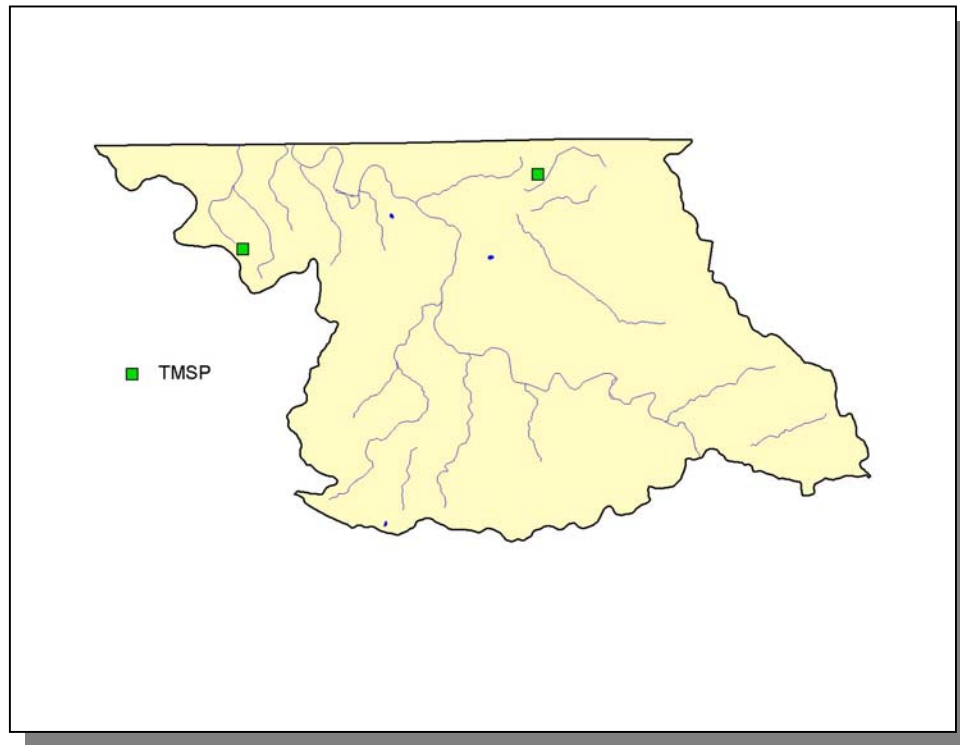


**Figure 4-38. Location of Historical Streamflow Data Collection Sites in Subwatershed 051302060202.** More information is provided in Appendix IV.

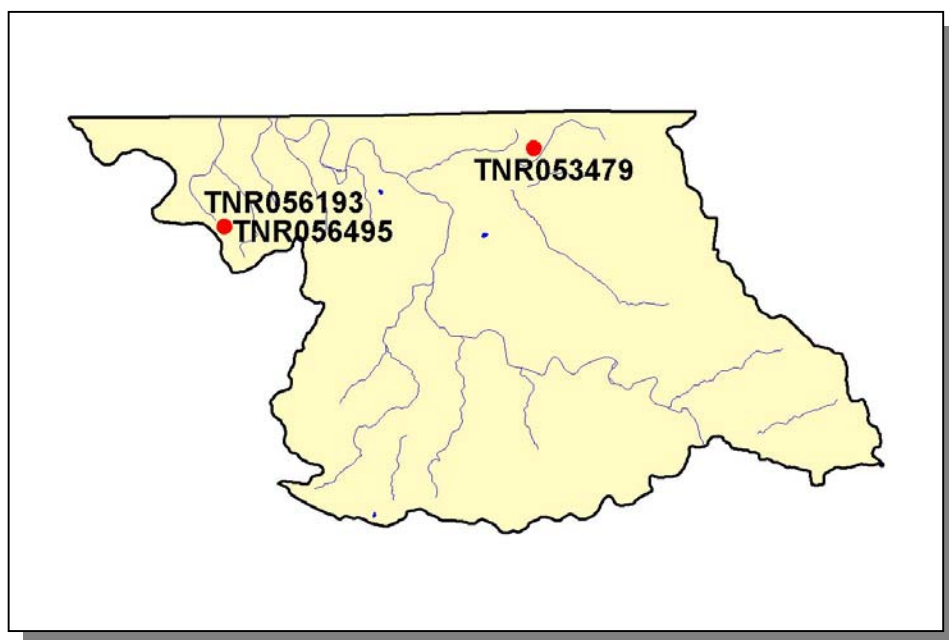


**Figure 4-39. Location of Monitoring Sites in EPA's STORET Database in Subwatershed 051302060202.** More information, including site names and locations, and station numbers for sites located in the watershed outside of Tennessee, is provided in Appendix IV.

**4.2.B.ii.a. Point Source Contributions.**



**Figure 4-40. Location of Permits Issued in Subwatershed 051302060202.** More information, including the names of facilities, is provided in Appendix IV.



**Figure 4-41. Location of TMSP Sites in Subwatershed 051302060202.** More information, including the names of facilities, is provided in Appendix IV.

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**4.2.B.ii.b. Nonpoint Source Contributions.**

LIVESTOCK COUNTS					
Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep
2,607	5,548	403	<5	809	32

**Table 4-29. Summary of Livestock Count Estimates in Subwatershed 051302060202.** According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

LIVESTOCK COUNTS						
County	Beef Cow	Cattle	Milk Cow	Chickens (Layers)	Hogs	Sheep
Robertson	22,502	47,887	3,478	31	6,982	279

**Table 4-30. Summary of Livestock Count Estimates in Robertson County.** According to the 1997 Census of Agriculture (<http://www.nass.usda.gov/census/>), "Cattle" includes heifers, heifer calves, steers, bulls and bull calves; "Chickens" are layers 20 weeks and older.

County	INVENTORY		REMOVAL RATE	
	Forest Land (thousand acres)	Timber Land (thousand acres)	Growing Stock (million cubic feet)	Sawtimber (million board feet)
Robertson	53.0	53.0	2.2	9.7

**Table 4-31. Forest Acreage and Annual Removal Rates (1987-1994) in Robertson County.**

CROPS	TONS/ACRE/YEAR
Grass (Pastureland)	0.67
Grass (Hayland)	0.37
Legumes, Grass (Hayland)	0.53
Legumes (Hayland)	0.73
Grass, Forbs, Legumes (Mixed Pasture)	0.42
Corn (Row Crops)	5.15
Soybeans (Row Crops)	10.03
Tobacco (Row Crops)	11.87
Wheat (Close-Grown Cropland)	1.68
Other Cropland not Planted	9.59
Conservation Reserve Program Lands	0.36
Other Land in Farms	0.27
Farmsteads and Ranch Headquarters	0.95

**Table 4-32. Annual Estimated Total Soil Loss in Subwatershed 051302060202.**